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WATER SUPPLY OUTLOOK FOR UTAH



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

**UTAH STATE DEPARTMENT OF NATURAL RESOURCES
-- DIVISION OF WATER RIGHTS**

AS OF
JAN. 1, 1979

WATER SUPPLY OUTLOOK FOR UTAH

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R. M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Released by

GEORGE D. McMILLAN

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SALT LAKE CITY, UTAH

In Cooperation with

UTAH STATE DEPT. OF NATURAL RESOURCES

DEE C. HANSEN

State Engineer
Division of Water Rights

DANIEL F. LAWRENCE

Director
Division of Water Resources

Report prepared by

BOB L. WHALEY, Snow Survey Supervisor
KENNETH C. JONES, Assistant Snow Survey Supervisor
and

LINDA K. LYTTON, Statistical Assistant

SOIL CONSERVATION SERVICE
SNOW SURVEY SECTION
4012 FEDERAL BUILDING
SALT LAKE CITY, UTAH 84138

WATER SUPPLY OUTLOOK

as of
JANUARY 1, 1979

* * * * *
* Utah's 1979 water supply outlook is above average. Snow *
* cover ranges from near average to double average. Water- *
* shed soil moisture ranges from below average in northern *
* Utah to above average in southern Utah. Reservoir storage *
* is 102% of the 1963-77 15 year average, statewide. *
* * * * *

SNOW COVER

Snow surveys taken the last few days of December and the first week of January show water contents ranging from near average on Salina Creek to better than double the average on the Upper Sevier and Virgin Rivers. Price River is 118% of the January 1 average, Duchesne River is 130%, Provo River 113%, Weber River 112%, Ogden River 161%, and Bear River 124% of average.

Snow courses below the 8,000 foot elevation are generally 130% of average or better while those at higher elevations are less than 130%. Snow cover is generally much improved over last January 1.

PRECIPITATION

Fall precipitation in Utah's mountains ranged from as low as 63% of average on Farmington Creek to 189% of average at Widtsoe #3 on the ridge between the east fork of the Sevier River and the Escalante River in southern Utah.

Fall precipitation in the mountains was generally below average to near average in the northern part of the state, near average to above average in central and southern Utah. This is the opposite of last years moisture pattern in the state.

RESERVOIR STORAGE

January 1 storage in 19 of Utah's key irrigation reservoirs is 102% of the 15 year average (1963-77) and 135% of last year at this time.

Reservoir storage is lowest on the Sevier River with Sevier Bridge at 49% of average, Piute at 57%, Otter Creek at 66%, and Gunnison at 75% of average for January 1. Minersville Reservoir is 106% of average.

Weber basin storage ranges from 104% of average at Rockport to 132% at East Canyon.

Pineview Reservoir is 111% and Causey 94% of average.

Bear Lake is 95% of average and Woodruff Narrows is estimated about average.

WATER SUPPLY OUTLOOK (continued)

Strawberry Reservoir is 106% and Utah Lake 116% of average.

Scofield Reservoir is 115% of average.

STREAMFLOW

Streamflow at key streams over the state averaged 117% for December. Streams ranged from 250% of average on the San Juan to 72% for the Weber at Oakley. The Great Salt Lake is at the 4198.65 foot elevation as of January 1, 1979, according to the U.S. Geological Survey.

Streamflow forecasts will be published in the February 1, Water Supply Outlook bulletin.

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

JANUARY 1, 1979

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
GREAT BASIN					
<u>Bear River</u>	Bear Lake	1421.0	978.9	764.0	1035.4
	Woodruff Narrows	26.5	18.5e	1.2	18.1
<u>Beaver River</u>	Minersville (RkyFd)	23.3	10.6	3.3	10.0
<u>Little Bear</u>	Hyrum	15.3	10.2	10.1	10.4
	Porcupine	11.3	2.5	2.2	2.7
<u>Ogden</u>	Causey	6.9	1.7	1.9	1.8b
	Pineview	110.1	58.0	36.2	52.1
<u>Provo</u>	Deer Creek	149.7	Delayed	69.0e	107.3
<u>Settlement Creek</u>	Settlement Creek	1.2	0.5	0.3	- -
	Vernon Creek	0.6	0.5	0.2e	- -
<u>Sevier River</u>	Gunnison	18.2	7.3	0.5	9.7
	Otter Creek	52.5	17.2	11.5	26.0
	Piute	71.8	18.5	9.6	32.2
	Sevier Bridge	236.0	48.2	58.3	99.0
<u>Spanish Fork</u>	Strawberry	270.0	157.4	137.9	147.8
<u>Utah Lake</u>	Utah Lake	883.9	742.1	558.9	639.3
<u>Weber</u>	East Canyon	48.1	35.0	18.5	26.6
	Echo	73.9	57.8	39.0	44.4
	Lost Creek	20.0	14.4	9.1	12.6b
	Rockport	60.9	39.4	19.3	37.9
	Willard Bay	193.3	159.6	104.9	121.6b
COLORADO RIVER BASIN					
<u>Ashley Creek</u>	Steinaker	33.3	Delayed	5.7	19.0
<u>Colorado</u>	Blue Mesa	829.5	594.4	235.3	- -
	Lake Powell	25002.0	15686.0	15363.0	- -
<u>Green</u>	Flaming Gorge	3749.0	2673.3	1990.7	- -
<u>Lakefork</u>	Moon Lake	35.8	Delayed	8.6	15.0
<u>Price River</u>	Scofield	65.8	38.6	17.3	33.7
<u>San Juan</u>	Navajo	1696.0	1196.0	977.9	- -
<u>San Rafael</u>	Huntington North	3.9	Delayed	1.8	1.7
	Joe's Valley	54.6	Delayed	33.0	35.1b
	Mill Site	16.7	5.3	0.3	- -
<u>Strawberry</u>	Starvation	165.3	Delayed	131.7	126.3

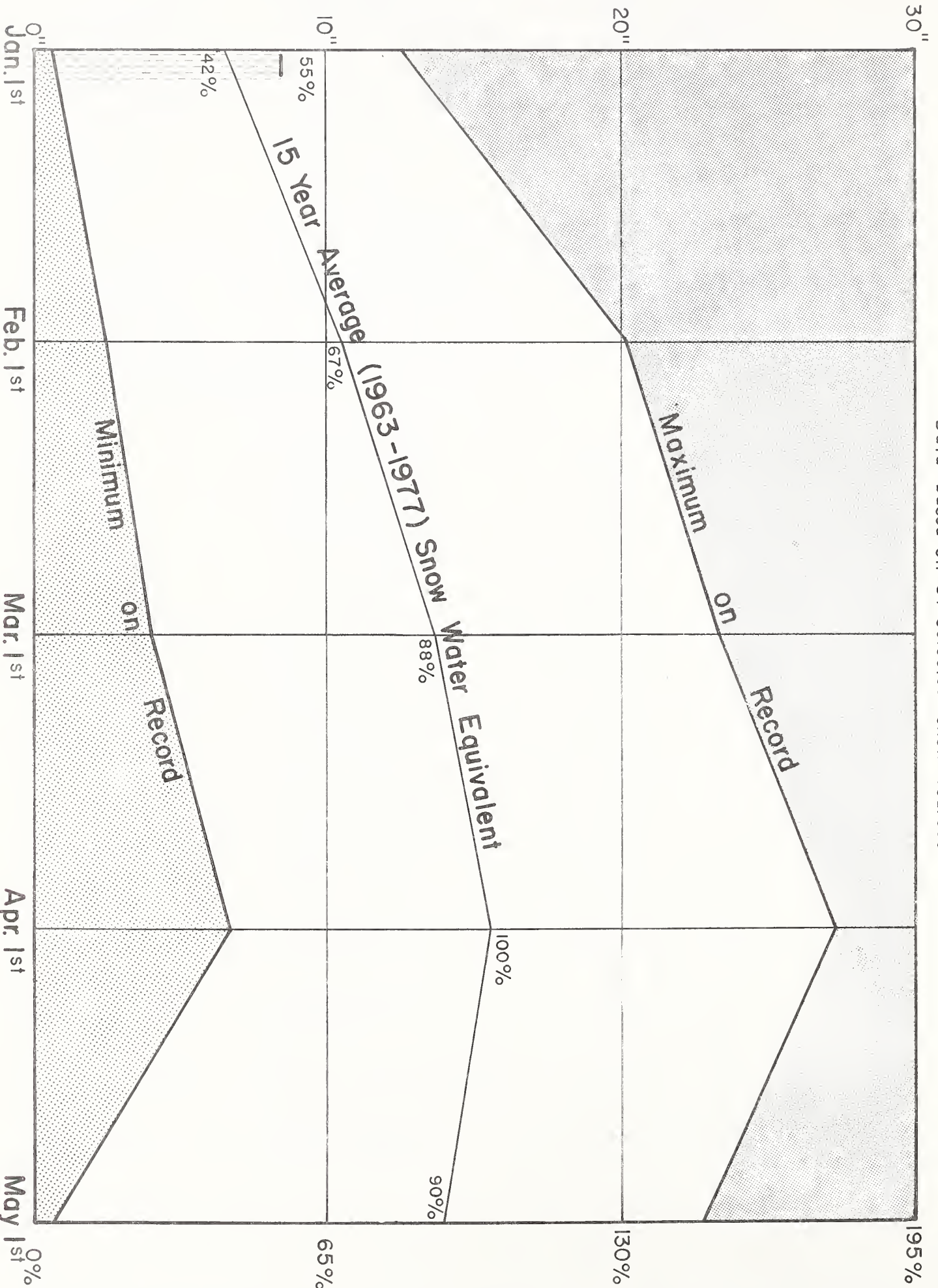
+ = 1963-77 15 year average period

b = less than 15 years in average period

e = estimated

UTAH'S WINTER SNOWPACK

Data based on 51 selected snow courses



PERCENT OF APRIL 1st SNOW WATER EQUIVALENT

INCHES OF SNOW WATER EQUIVALENT

1979 Snowpack



SNOW

SNOW	THIS YEAR					PAST RECORD		PRECIPITATION (Inches)				
	DRAINAGE BASIN and/or SNOW COURSE NAME	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		CURRENT INFORMATION			FROM APPROX. OCT. 1 TO DATE		
					Last Year	Average †	Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
GREAT BASIN												
UPPER BEAR RIVER (Above Harer, Idaho)												
Burts-Miller Ranch												
CCC Camp	12/29	31	6.0	9.4	4.9							
Hayden Fork	1/2	30a	7.7a	8.9	--							
Monte Cristo	12/27	33	8.7	15.6	--	12/27	--	--	8.88	11.07b	80	
Salt River Summit	12/29	39	8.4	11.2	5.9	12/29	5.06	--	6.62	7.17	92	
Stillwater Camp												
Not Measured												
LOWER BEAR RIVER (Below Harer, Idaho)												
Bug Lake												
12/26	34	8.8	--	--								
12/26	19	3.7	6.0	--								
12/26	35	9.7	22.5	--								
12/26	36	9.9	11.0	6.9		12/26	--	--	9.71	8.06	120	
12/26	32	8.0	17.3	7.1		12/26	--	--	6.82	--	--	
12/26	25	6.1	6.1	--								
12/26	28	6.9	6.4	--								
12/26	52	14.3	--	13.6								
12/26	39	10.3	--	9.1								
12/26	57	16.4	32.2	--								
12/26	31	7.1	9.0	4.1								
12/26	31	8.1	10.6	--		12/26	4.10	--	8.18	10.14b	81	
Willow Flat												
OGDEN RIVER												
Beaver Creek-Skunk Creek												
12/27	20	5.9	7.2	--								
12/27	32	9.4	8.0	4.7		12/27	--	--	11.41	11.25b	101	
12/27	53	16.0	18.9	12.4								
12/27	37	11.1	--	5.6b		12/27	--	--	11.67	12.95b	90	
Causey Dam												
Cutler Creek												
Discontinued												
12/27	29	7.8	12.0	--								
12/27	16	4.2	2.4	--		12/27	--	--	6.37	6.62b	96	
Dry Bread Pond												
12/27	16	4.2	2.4	--		12/27	--	--	6.53	--	--	
Sagebrush Flat												
WEBER RIVER												
Beaver Creek R.S.												
Data Delayed												
1/2	34	8.8	11.6	--								
1/2	25	6.1	5.7	--								
1/2	20	4.8	3.3	--		1/2	--	--	4.40	--	--	
12/27	41	12.4	9.3	9.3b		12/27	--	--	11.21	13.14	85	
12/27	42	13.1	13.8	12.9b								
Farmington Canyon (lower)												
Farmington Canyon (upper)												
Farmington G.S.												
12/27	38	10.9	13.8	--		12/27	--	--	8.32	13.12b	63	
12/27	34	8.5	--	--		12/27	--	--	10.87	--	--	
12/27	18	4.2	3.3	--		12/27	--	--	5.13	--	--	
12/30	43	12.2	--	--								
12/28	33	7.6	8.1	7.9		12/28	--	--	8.49	10.49	81	
Parley's Canyon Summit												
Not Measured												
Not Measured												
1/2	23	6.5	5.6	5.2		1/2	--	--	6.02	8.35	72	
Smith & Morehouse												
PROVO RIVER & UTAH LAKE												
Beaver Creek Divide												
Data Delayed												
12/30	34	10.6	5.2	6.5								
12/30	35	9.0	9.3	--								
12/30	34	7.9	6.8	--		12/30	--	--	8.80	--	--	
12/30	24	5.1	4.7	--								
12/30	35	9.8	7.7	--								
12/30	38	9.7	5.9	--		12/30	--	--	10.35	--	--	
Hobble Creek Summit												
Packard Canyon												
Discontinued												
12/30	31	8.2	5.5	8.0		12/30	--	--	8.95	8.74	102	
Payson R.S.												
Not Measured												
Rock Bridge												
Data Delayed												
Data Delayed												
Data Delayed												
Data Delayed												
12/30	50	15.5	7.7	10.8								
1/2	41a	10.7a	15.1	10.3								
Timpanogos Cave Camp												
Timpanogos Divide												
Trial Lake												

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	THIS YEAR			PAST RECORD		PRECIPITATION (Inches)					
	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		CURRENT INFORMATION			FROM APPROX. OCT 1 TO DATE		
				Last Year	Average †	Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
JORDAN RIVER & GREAT SALT LAKE											
Lamb's Canyon #2	12/28	29	7.1	7.2	--	12/28	--	--	7.03	--	--
Middle Canyon	12/28	27	7.6	2.2	6.1b	12/28	--	--	8.60	--	--
Mill Creek	12/29	32	7.5	7.0	--						
Mill D South Fork	12/29	30	8.4	7.4	8.2						
Mt. Dell Dam											
Silver Lake (Brighton)	12/29	41	11.4	9.6	10.3	12/30	4.92	4.98	12.30	12.67	97
Snow Bird (Gad Valley)		Data Delayed									
Vernon Creek	12/28	29	8.5	1.8	--	12/28	--	--	8.90	--	--
UPPER SEVIER RIVER (South of Richfield, Utah)											
Box Creek	12/26	34	10.6	3.5	--	12/26	--	--	9.80	--	--
Bryce Canyon	12/28	25	4.6	0.5	2.1						
Castle Valley	12/26	40	10.8	3.3	--	12/26	--	--	12.05	--	--
Duck Creek R.S.	1/2	38	9.8	3.6	5.2	1/2	--	--	12.73	8.03	159
Harris Flat	1/2	28	7.2	4.0	3.0						
Kimberly Mine	12/26	30	9.2	4.9	6.2	12/26	--	--	9.28	8.07	115
Midway Valley	1/2	52	14.4	4.1	8.5	1/2	--	--	16.30	--	--
Panguitch Lake	12/26	24	6.2	1.0	--	12/26	--	--	8.10	--	--
Squaw Springs	12/26	22	6.3	2.2	--						
Farview	12/29	34	6.3	1.0	--						
Rainbow Point	12/29	38	10.0	1.4	--						
LOWER SEVIER RIVER (Including San Pitch River)											
Beaver Dams	12/27	20	5.5	3.9	4.2b	12/27	--	--	6.43	5.84b	110
Farnsworth Lake	12/28	29	7.0	6.6	8.0	12/28	--	--	7.60	8.55	89
G.B.R.C. Headquarters	12/26	28	7.5	5.7	6.8	12/26	3.80	--	8.15	8.54	95
G.B.R.C. Majors						12/30	2.10	--	4.60	4.23b	109
G.B.R.C. Meadows	12/26	37	10.3	9.7	9.0b	12/26	--	--	9.37	10.14	92
G.B.R.C. Oaks						12/30	2.60	--	5.50	5.80	95
Gooseberry R.S.	12/28	21	5.2	3.9	5.3	12/28	--	--	6.85	--	--
Mammoth-Cottonwood Creek	12/26	34	9.6	11.1	7.9		Precip discontinued				
Middle Fork		Not Measured									
Mt. Baldy R.S.	12/27	39	10.4	9.0	9.2	12/27	--	--	9.10	7.97b	114
Oak Creek	1/3	29	7.3	2.7	--	1/3	--	--	8.71	--	--
Pickle Keg Springs	1/2	26a	6.9a	7.0	--						
Pine Creek	12/26	27	8.8	4.4	--	12/26	--	--	9.21	--	--
Ree's Flat	12/29	25	6.8	4.9	--	12/29	--	--	6.75	--	--
Shingle Mill	1/3	18	5.2	1.0	4.5b	1/3	--	--	6.70	8.15b	82
Thistle Flat		Not Measured									
BEAVER RIVER											
Beaver Canyon Power House						12/30	2.14	1.73	5.89	4.22	140
Beaver Race Track	1/2	0	0.0	0.0	--						
Big Flat	12/26	40	10.0	4.8	--	12/26	--	--	9.69	--	--
Merchant's Valley (upper)	12/26	29	7.0	3.6	--	12/26	--	--	7.17	--	--
Otter Lake	12/26	35	8.2	3.0	--						
PAROWAN CREEK											
Birch Crossing	12/27	23	5.4	0.9	3.2b						
Brian Head	12/26	50	14.0	4.2	8.8b						
Tall Poles	12/27	34	8.4	2.8	6.0b	12/27	--	--	5.95	7.28b	82
Yankee Reservoir	12/26	28	7.6	0.9	--	12/26	--	--	6.25	--	--
ENTERPRISE TO NEW HARMONY DRAINAGES											
Little Grassy Creek	1/3	19	5.4	0.0	--	1/3	--	--	10.90	--	--
Long Flat	1/3	24	6.6	2.1	--	1/3	--	--	10.35	--	--
COAL CREEK											
Cedar City Golf Course	1/3	0	0.0	--	--						
SUSC Ranch	12/27	31	7.8	--	3.4						

SNOW

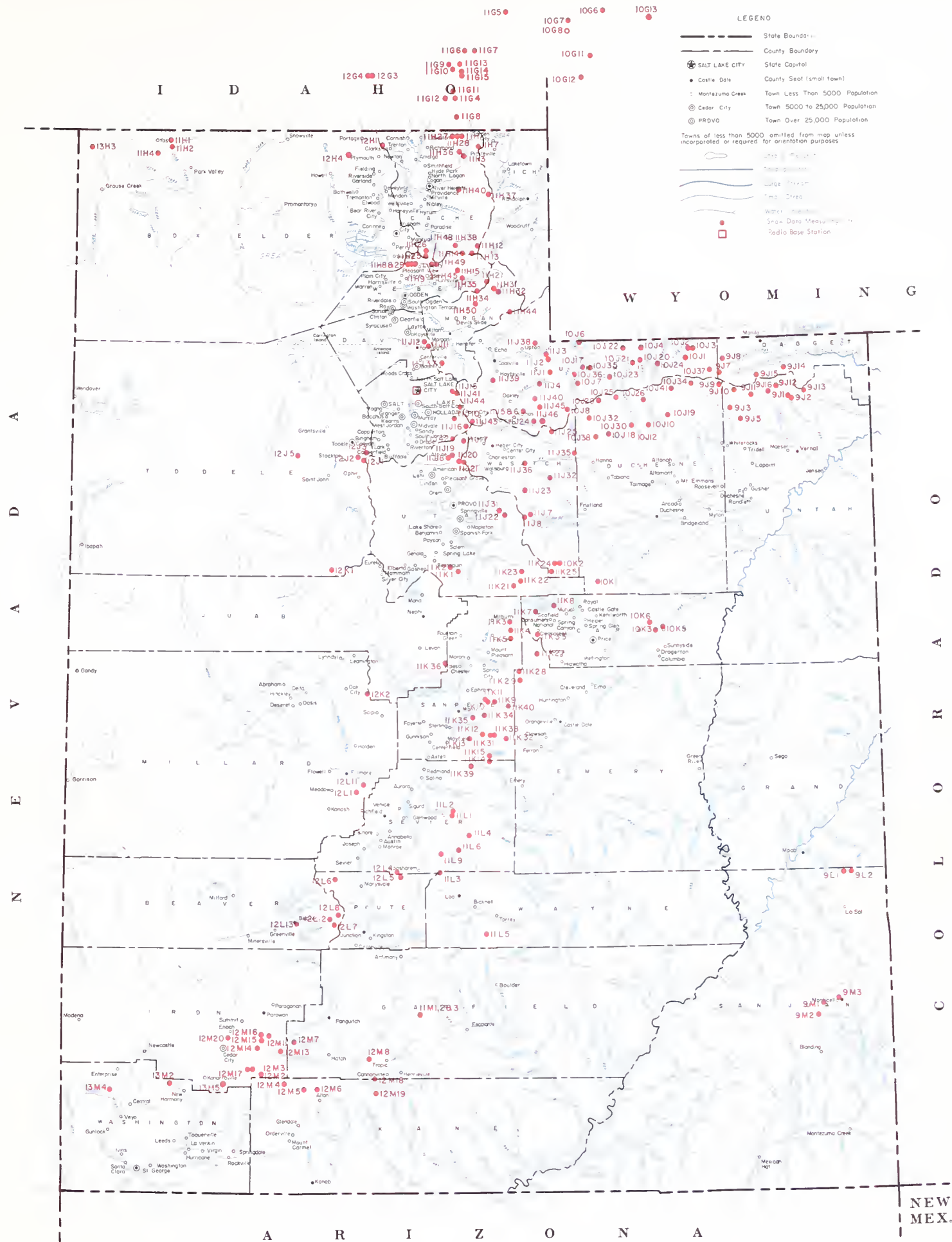
SNOW	THIS YEAR				PAST RECORD		PRECIPITATION (Inches)					
	DRAINAGE BASIN and/or SNOW COURSE NAME	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)		CURRENT INFORMATION			FROM APPROX. OCT 1 TO DATE		
					Last Year	Average †	Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
COLORADO RIVER DRAINAGE												
UPPER GREEN RIVER - UTAH												
Black's Fork G.S.-East Fork		Data Delayed										
Black's Fork Junction		Data Delayed										
Burnt Creek	12/28	21	4.2	1.3	--	12/28	--	--	5.40	4.49b	120	
Dutch John Junction	12/28	21	3.8	1.4	--							
Grizzly Ridge	12/28	30	7.1	2.8	--	12/28	--	--	7.32	6.31b	116	
Hewinta G.S.		Data Delayed										
Hickerson Park		Data Delayed										
Highline Trail		Data Delayed										
King's Cabin (lower)		Data Delayed										
King's Cabin (upper)	1/2	29a	7.0a	--	--							
Spirit Lake		Data Delayed										
Steel Creek Park		Data Delayed										
Trout Creek	1/2	28a	6.7a	--	--							
DUCHESNE RIVER												
Brown Duck Ridge	1/2	28a	6.8a	--	--							
Currant Creek	12/30	28	6.5	5.0	--							
Daniels-Strawberry Summit	12/30	34	8.3	7.0	5.6	12/30	--	--	9.96	8.44	118	
East Portal	12/30	31	6.8	7.0	4.5	12/30	4.07	--	10.03	7.80	129	
Indian Canyon	12/30	39	10.0	6.3	5.2	12/30	--	--	10.27	6.28	164	
Jackson Park		Data Delayed										
Lakefork Mountain	1/2	23a	5.6a	--	--							
Lakefork Mountain #3		Data Delayed										
Mosby Mountain	1/2	29a	6.9a	--	4.2							
Paradise Park		Data Delayed										
Rock Creek Ranch		Data Delayed										
Strawberry Divide	12/30	43	10.4	9.9	7.8							
PRICE RIVER												
Dry Valley Divide		Not Measured										
Gooseberry Reservoir		Snow Course Discontinued										
Jones Ranch		Discontinued										
Mud Creek	12/26	30	6.7	7.1	5.7							
White River #1	12/30	32	8.5	7.2	--	12/26	--	--	8.83	6.50	136	
White River #2		Discontinued										
White River #3	12/30	20	4.8	5.7	--							
SAN RAFAEL RIVER												
Buck Flat	12/27	27	7.2	8.0	--	12/27	--	--	8.80	6.30	140	
Huntington-Horseshoe	12/26	32	10.5	11.0	--							
Orange Olsen	12/29	13	2.5	1.0	--	12/29	--	--	5.35	--	--	
Red Pine Ridge	12/26	28	8.0	7.2	--	12/26	--	--	9.30	--	--	
Rush Pond		Discontinued										
Seeley Creek R.S.	12/26	24	7.4	5.9	--							
Stuart R.S.	12/26	20	4.2	5.5	--	12/26	--	--	6.40	--	--	
Upper Joe's Valley	12/26	21	5.0	5.0	--							
Wrigley Creek	12/28	26	5.6	5.3	--							
MUDDY RIVER												
Black's Fork		Not Measured										
Dill's Camp	1/2	20a	5.5a	7.0	--	12/28	--	--	7.33	--	--	
FREMONT RIVER												
Black's Flat-U.M. Creek	12/28	28	7.6	4.0	--	12/28	--	--	7.88	--	--	
Fish Lake	12/28	21	5.1	2.0	--	12/28	--	--	6.80	5.02b	135	
Johnson Valley	12/28	22	5.0	2.7	--							
SOUTHEASTERN UTAH DRAINAGES												
Buckboard Flat	12/27	46	14.2	2.1	--	12/27	--	--	15.20	--	--	
Camp Jackson	12/27	43	11.8	1.2	--	12/27	--	--	15.00	--	--	
LaSal Mountain (lower)	12/28	23	5.6	3.2	--							
LaSal Mountain (upper)	12/28	33	8.8	4.8	--	12/28	--	--	8.24	--	--	
Monticello City Park	12/29	15	4.4	0.0	--							

SNOW

DRAINAGE BASIN and/or SNOW COURSE NAME	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
				Last Year	Average †
<u>ESCALANTE RIVER</u>					
Widtsoe-Escalante Summit		Discontinued			
Widtsoe-Escalante #2		Discontinued			
Widtsoe-Escalante #3	12/28	40	11.2	1.6	4.5
<u>VIRGIN RIVER</u>					
Kolob-Crystal	1/3	50	15.6	3.9	- -
Long Valley Junction	12/28	30	7.8	1.5	1.5
Webster Flat	1/3	40	11.2	3.6	6.6
a - Partly estimated b - Average of past record in average period - less than 15 years + - 1963-77 15 year average period					

PRECIPITATION (Inches)

CURRENT INFORMATION			FROM APPROX. OCT 1 TO DATE		
Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
12/28	- -	- -	11.35	6.01	189
1/3	- -	- -	16.38	8.14	201



INDEX TO UTAH, B

GREAT BASIN DRAINAGE

[illegible]

Agencies Cooperating in Utah Snow Surveys

U.S. GOVERNMENT AGENCIES

U.S. Department of Agriculture
Soil Conservation Service
Forest Service
U.S. Department of Commerce
NOAA, National Weather Service
U.S. Department of Interior
Bureau of Reclamation
Geological Survey
National Park Service

STATE AGENCIES

Utah State University
Utah Fish and Game Department
Utah State Department of Natural
Resources, Division of Water Rights
Bear River Commissioner
Price River Commissioner
Provo River Commissioner
Sevier River Commissioners
Spanish Fork River Commissioner
Utah Lake and Jordan River Commissioner

MUNICIPALITIES

Manti
Salt Lake City

ORGANIZED PUBLIC AGENCIES

Beaver River Water Users Association
Board of Canal Presidents - Jordan River
Emery Canal and Reservoir Company
Moon Lake Water Users Association
Ogden River Water Users Association
Provo River Water Users Association
Strawberry Water Users Association
Sevier River Water Users Association

PRIVATE AGENCIES

Kaiser Steel Corporation

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
FEDERAL BLDG., - Room 4012
125 SOUTH STATE ST.
SALT LAKE CITY, UTAH 84138

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

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AGR-101



FIRST CLASS MAIL

U.S. DEPT. OF AGRICULTURE
SOIL CONSERVATION SERVICE
FEDERAL BLDG. - ROOM 4012
SALT LAKE CITY, UTAH 84138

DEC 22 1964

CLERK

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*